Regional Greenhouse Gas Initiative (RGGI)

Policy Summary: Massachusetts is one of the 9 Northeast and Mid-Atlantic states participating in a regional effort to limit carbon dioxide emissions from electric generating units in the region. The program, which began in January 2009, establishes a region-wide cap on CO2 emissions from fossil fuel-fired power plants in the region. The current program design calls for the cap to fall by 2.5% each year until 2020, at which time regional CO_2 emissions will be at least 50% below the 2005 level.

By the end of each three-year compliance period, facilities covered under the program are required to have purchased allowances—a limited authorization to emit one ton of CO_2— equal to their total emissions; the allowances are then retired so they cannot be used again. Allowances are made available by the states for purchase in quarterly auctions. Massachusetts is investing over 80 percent of its auction proceeds in energy efficiency, with smaller amounts for renewable energy and other consumer benefit programs.

Clean Energy Economy Impacts: Over $250 million in auction proceeds has been invested in energy efficiency projects across the Commonwealth since 2009, creating jobs in the clean energy economy. In addition, the efficiency investments will reduce electricity and fuel costs for property owners, leaving them with savings to be invested elsewhere in the local economy.

Rationale: The electric generating sector represents approximately 17% of total GHG emissions in Massachusetts at present. The RGGI program provides a transparent and stable signal to the electricity sector to plan for a cleaner energy future. In addition, improvements in building energy efficiency reduce the demand for electricity and help keep emissions below the cap, reducing the cost of compliance.

Policy Design: The RGGI states are reviewing EPA's final Clean Power Plan (CPP), which will require states to plan for and realize reductions in emissions of CO_2 from power plants in 2030. Potential changes to the RGGI program to align RGGI with the CPP are currently under study and will likely be implemented in 2017. However, these changes are not likely to significantly impact projected emissions in 2020.

GHG Impact: The RGGI has a regional emissions cap, providing for annual 2.5% reductions in CO_2 emissions across the 9-state region through 2020, and there is no specific limit on emissions deriving from the power plants in a particular state. Massachusetts' significant policies for electrical energy efficiency and renewable electricity are supported, in part, by proceeds from the RGGI auctions. Therefore, in this Massachusetts-specific analysis, emission reductions are attributed to all of these programs in combination.

Other Benefits: By providing incentives for reduced operation of the dirtiest plants and greater operation of cleaner ones, the RGGI program also reduces criteria and hazardous pollutant emissions (NO_x, SO_2, mercury, and fine particulate matter). These reductions have public health and environmental benefits.

Costs: Since funds received from sale of RGGI allowances are largely invested in the state's utility-administered energy efficiency programs, RGGI's costs in fractionally higher electricity prices are offset by reductions in the costs of the efficiency program.

Experience in Other States: California has implemented a similar cap on carbon emissions.

Legal Authority: Massachusetts RGGI regulations derive from authority under the Green Communities Act.

Uncertainty: A range of factors affect emissions from power plants. Some factors are under the control of power plants or the Commonwealth, and some are not, ranging from the weather and relative prices of fuels used to generate electricity to the aggressiveness of the implementation of energy efficiency programs.